F09207 2594807

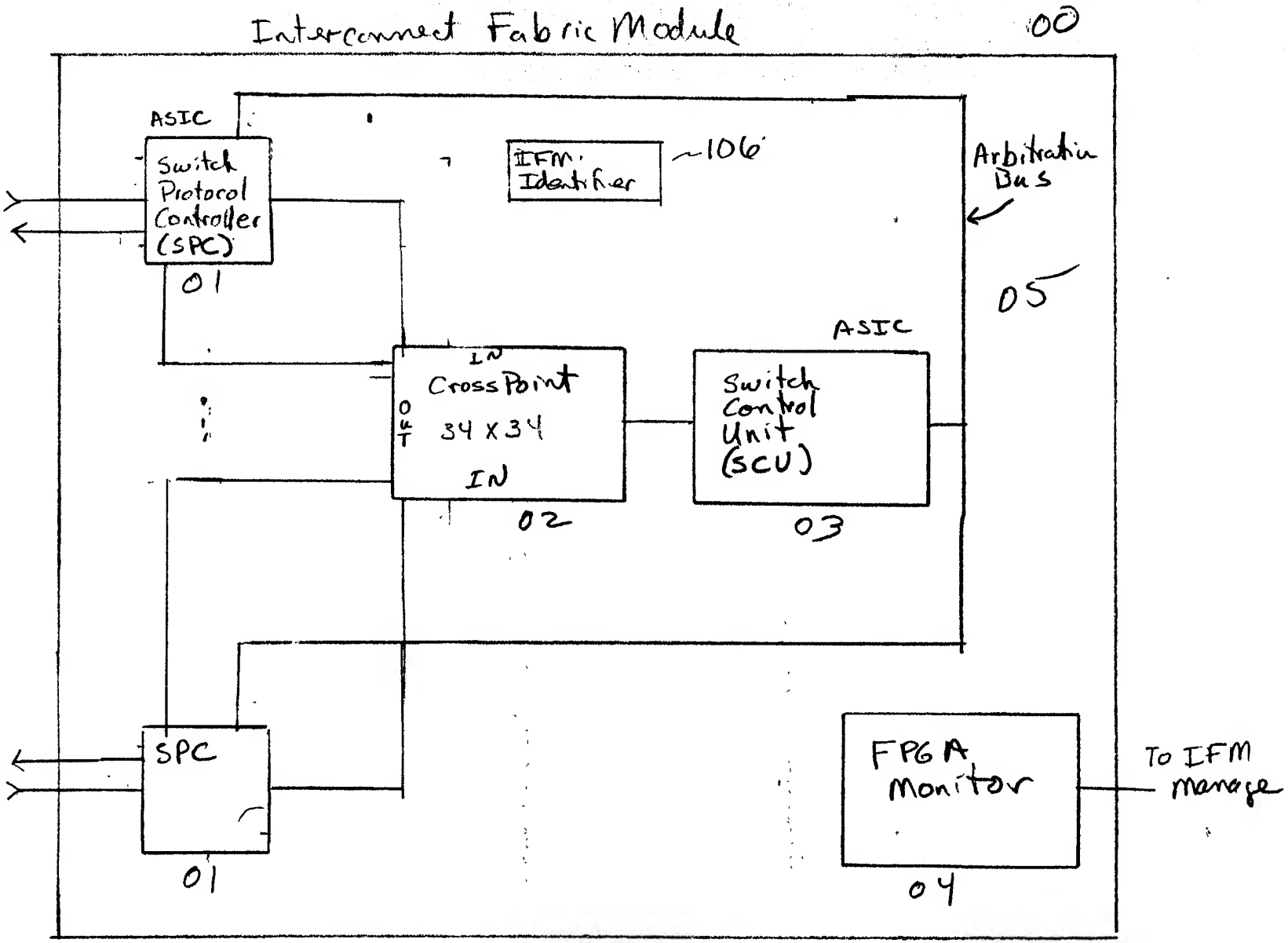


Fig 1

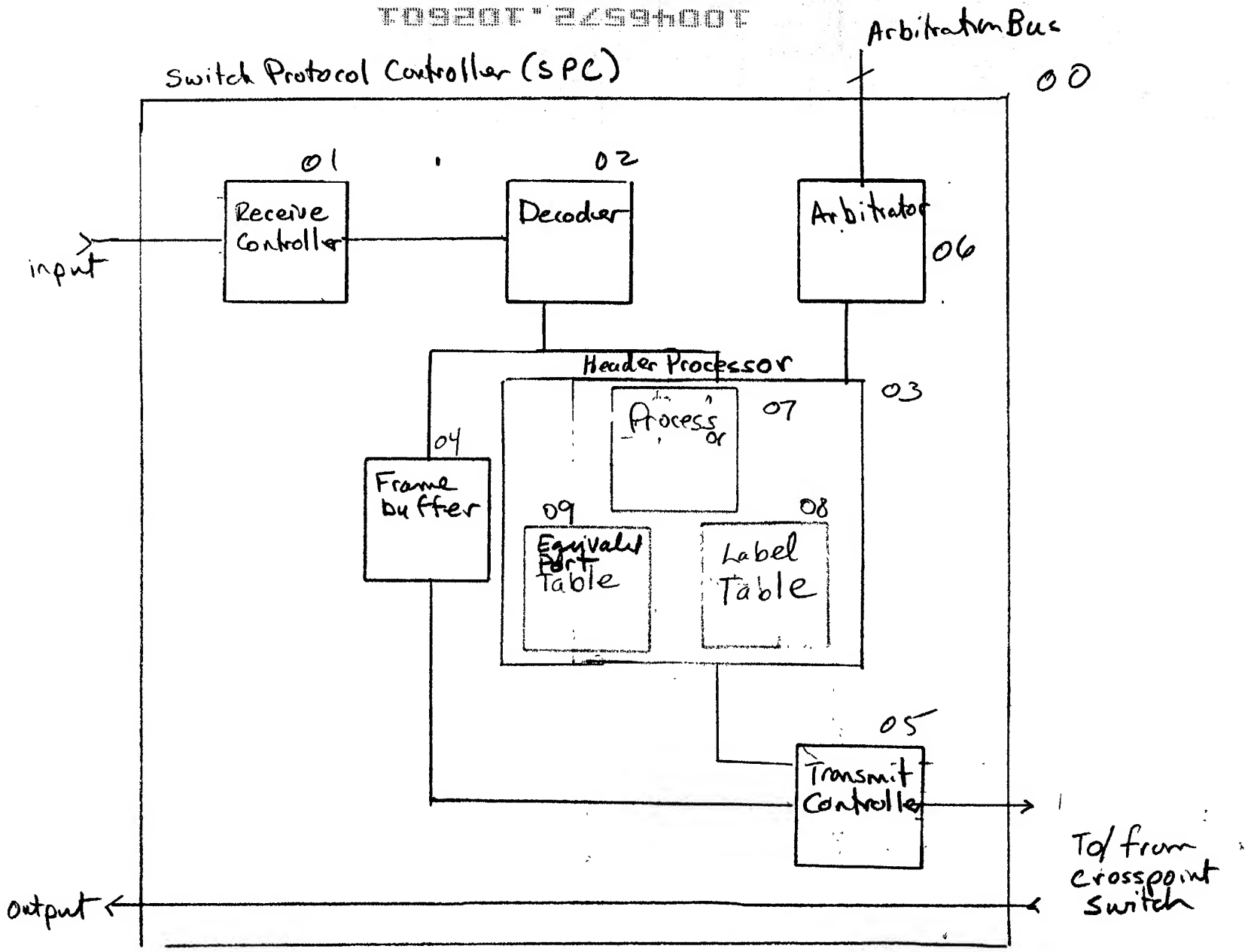

Switch Protocol Controller (SPC)
00
Arbitration Bus
01
Receive Controller
02
Decoder
Arbitrator
06
input
Header Processor
03
Processor
07
04
Frame buffer
09
Equivalent Port Table
08
Label Table
05
Transmit Controller
To/from crosspoint switch
output

Fig 2

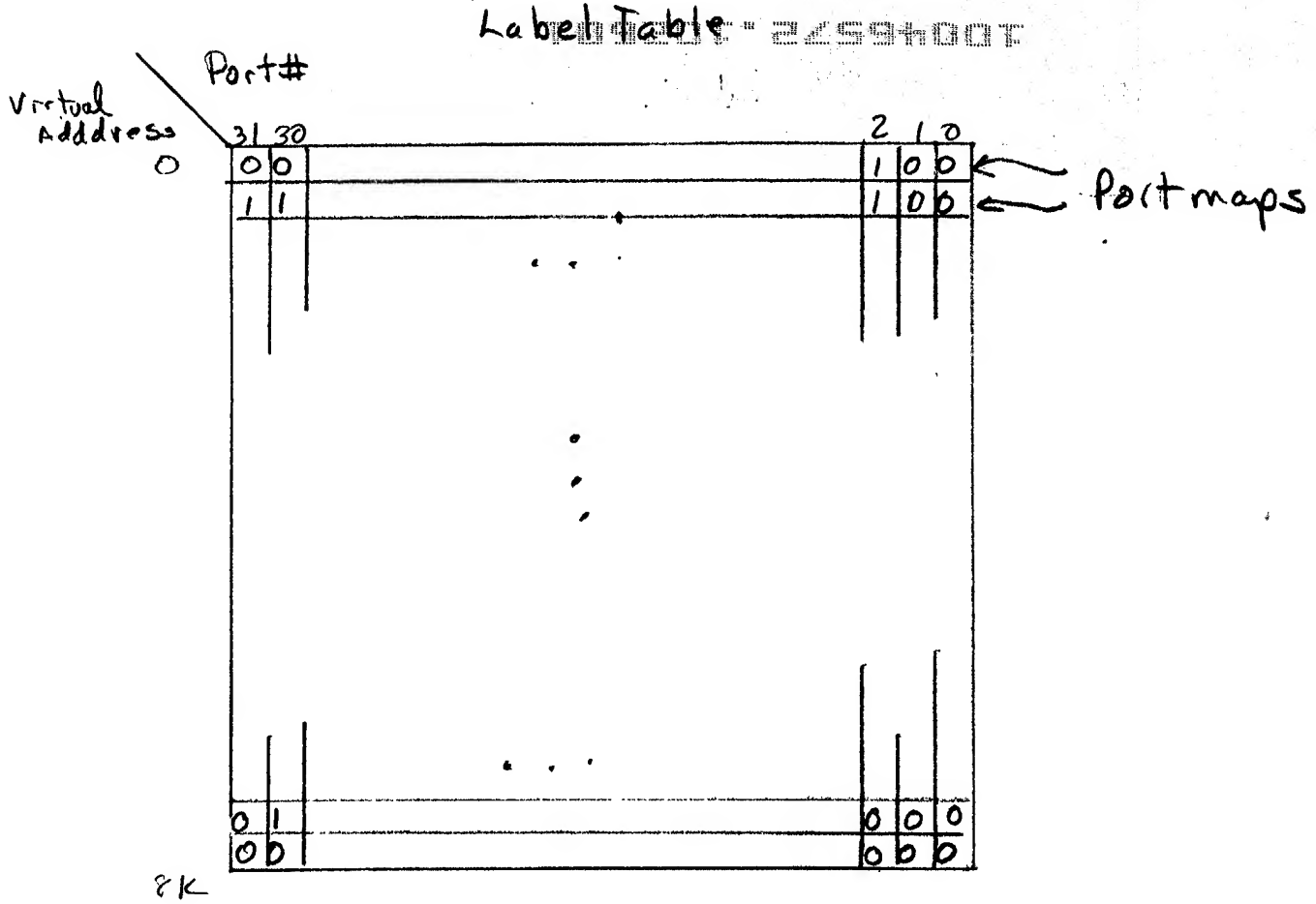

Label Table
Port#
Virtual Address
31 30
2 1 0
0
1 1
1 0 0
1 0 0
Port maps
0 1
0 0
0 0 0
0 0 0
8K

Fig 3

T09201 "2759h001

Frame

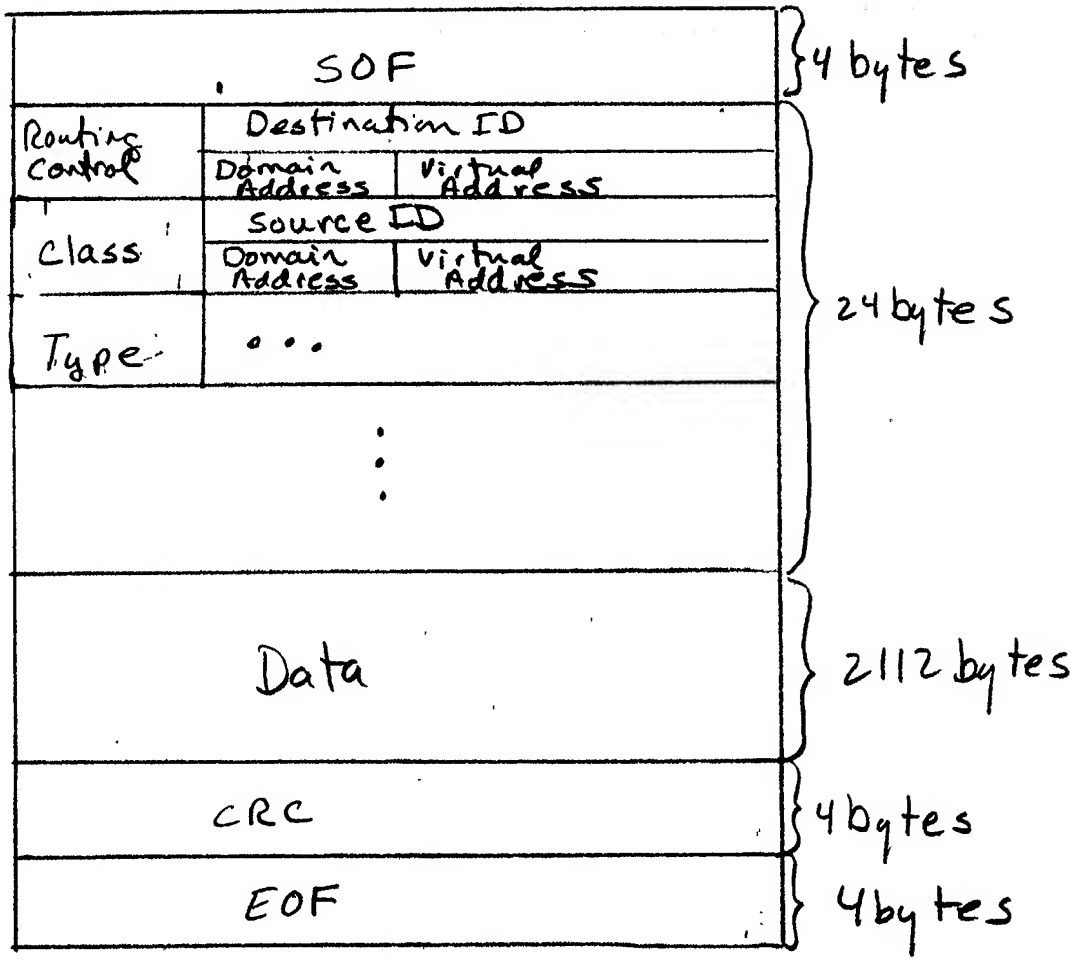


Fig 4

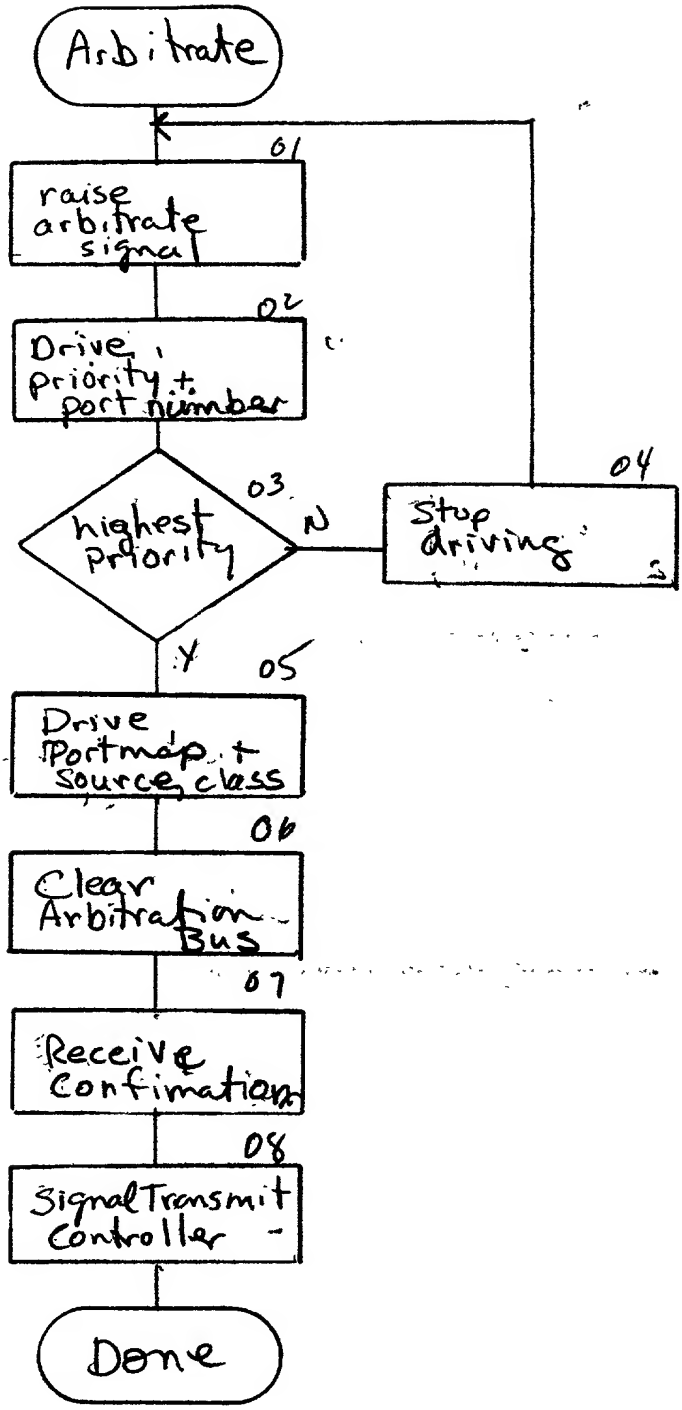

Arbitrate
01
raise arbitrate signal
02
Drive priority + port number
03
highest priority
N
04
Stop driving
Y
05
Drive Portmap + source class
06
Clear Arbitration Bus
07
Receive Confimation
08
SignalTransmit Controller
Done

Fig 5

F0920F 2594001

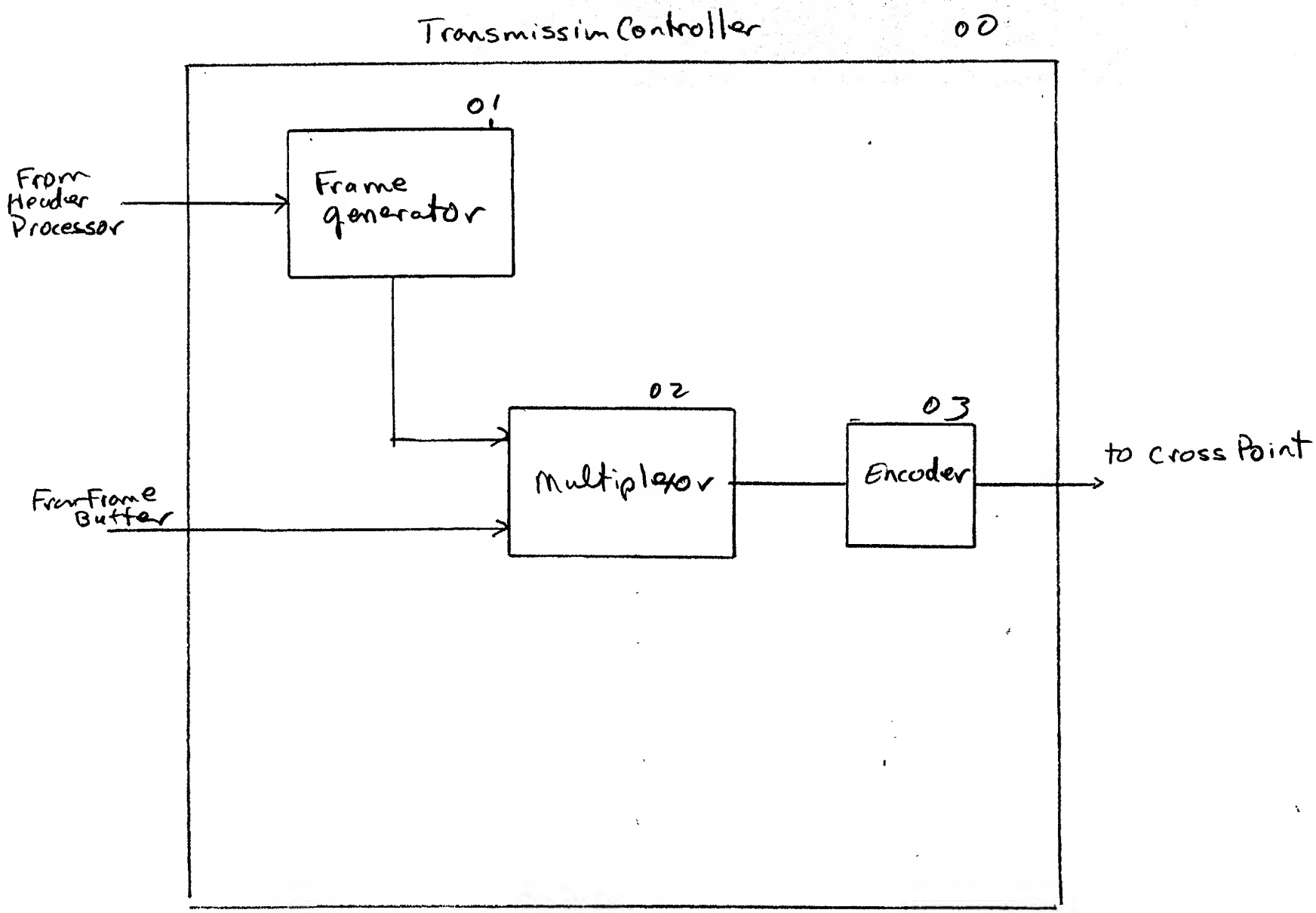


Fig 6

F09201F' 2594001

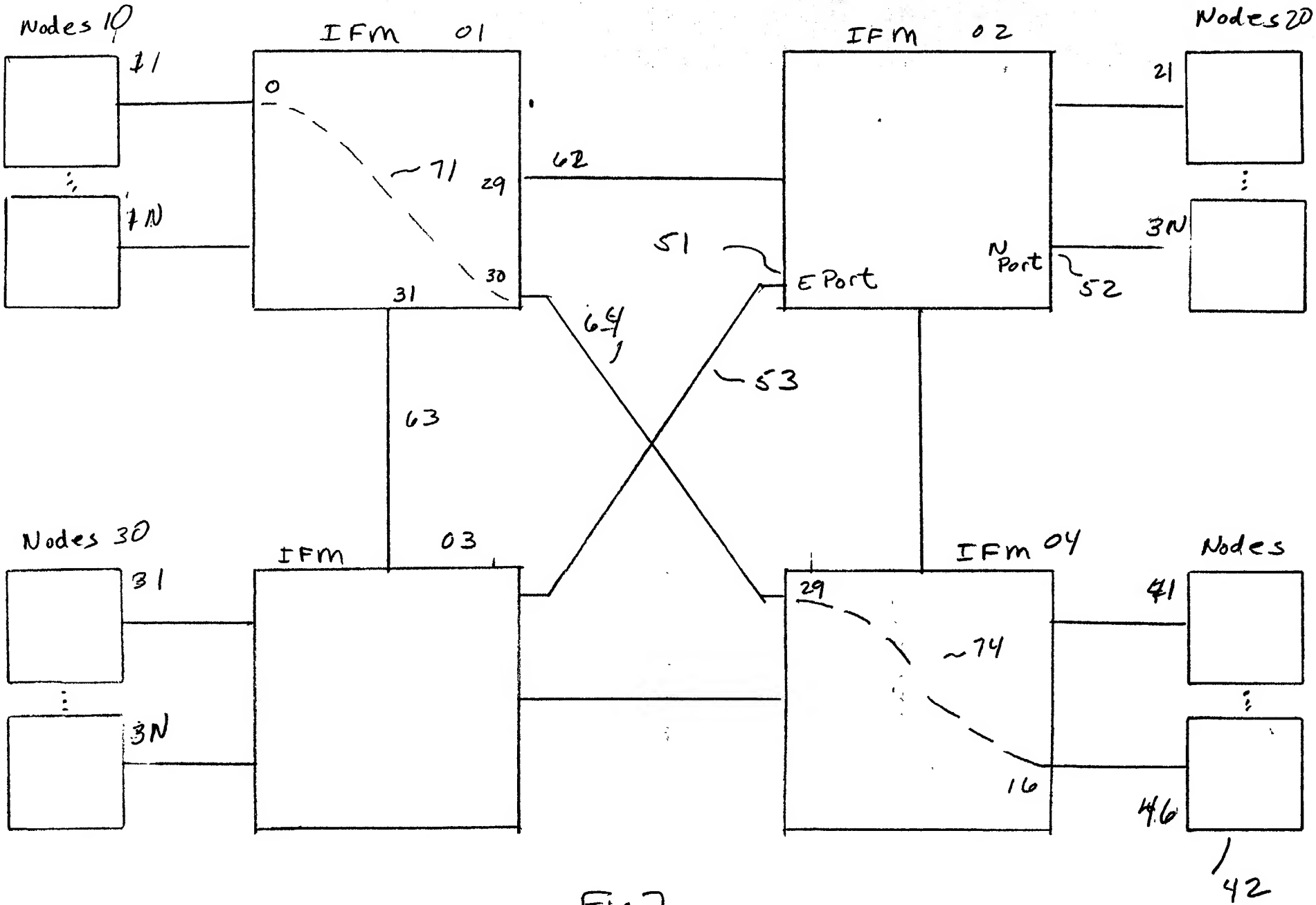


Fig 7

FD920F" 2594H00F

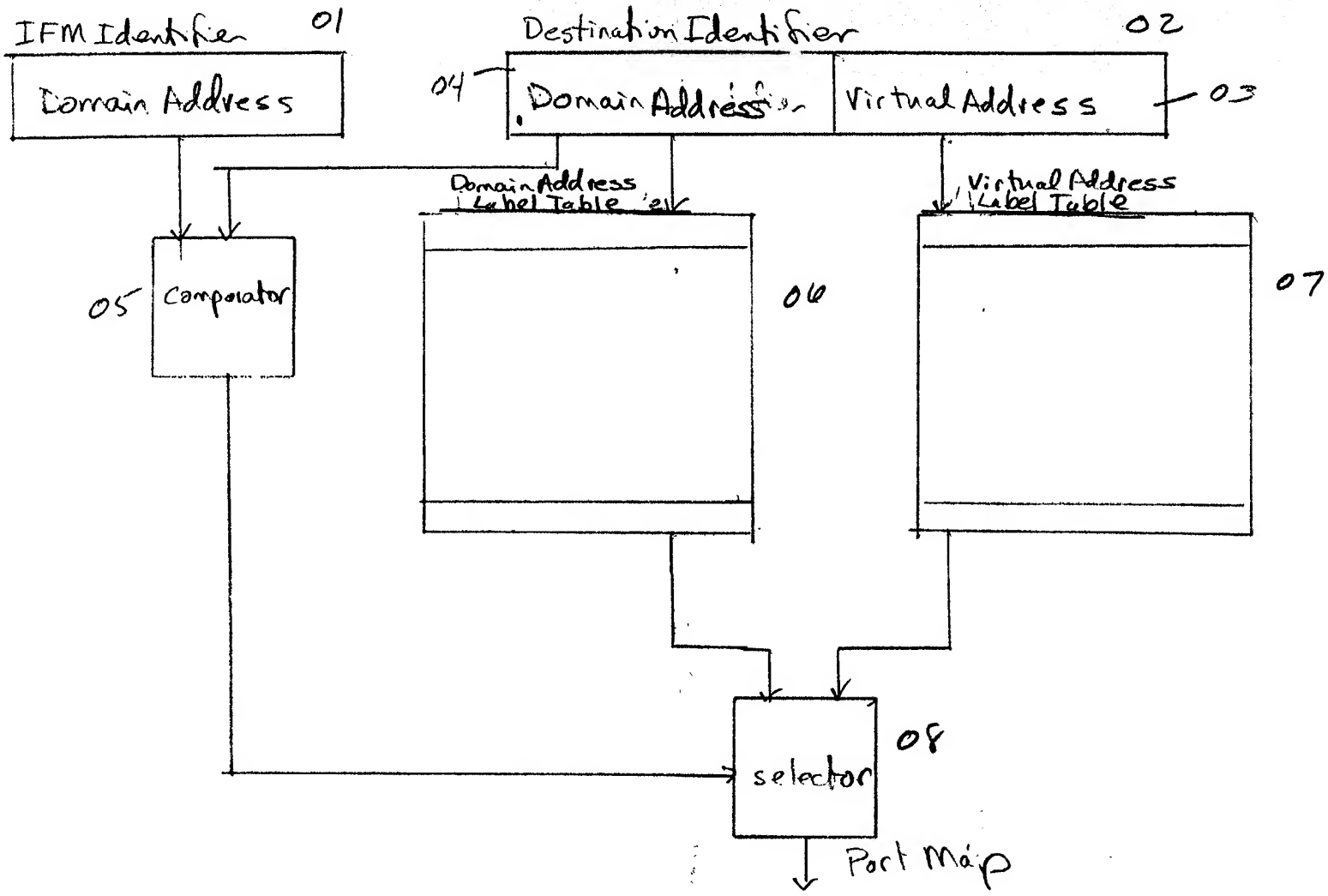


Fig. 8

T0920T* 2594001

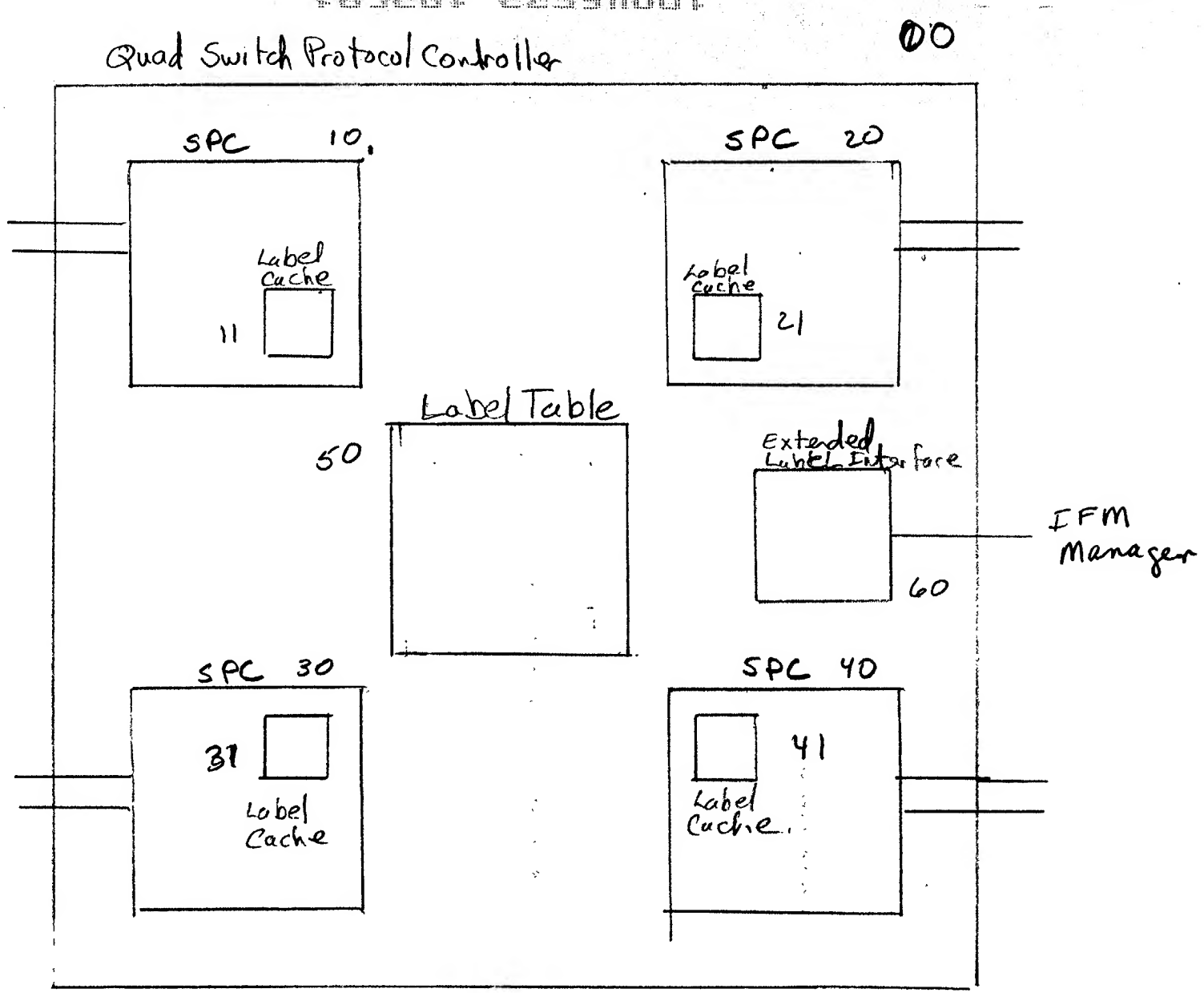


Fig 9

TW92207259U01

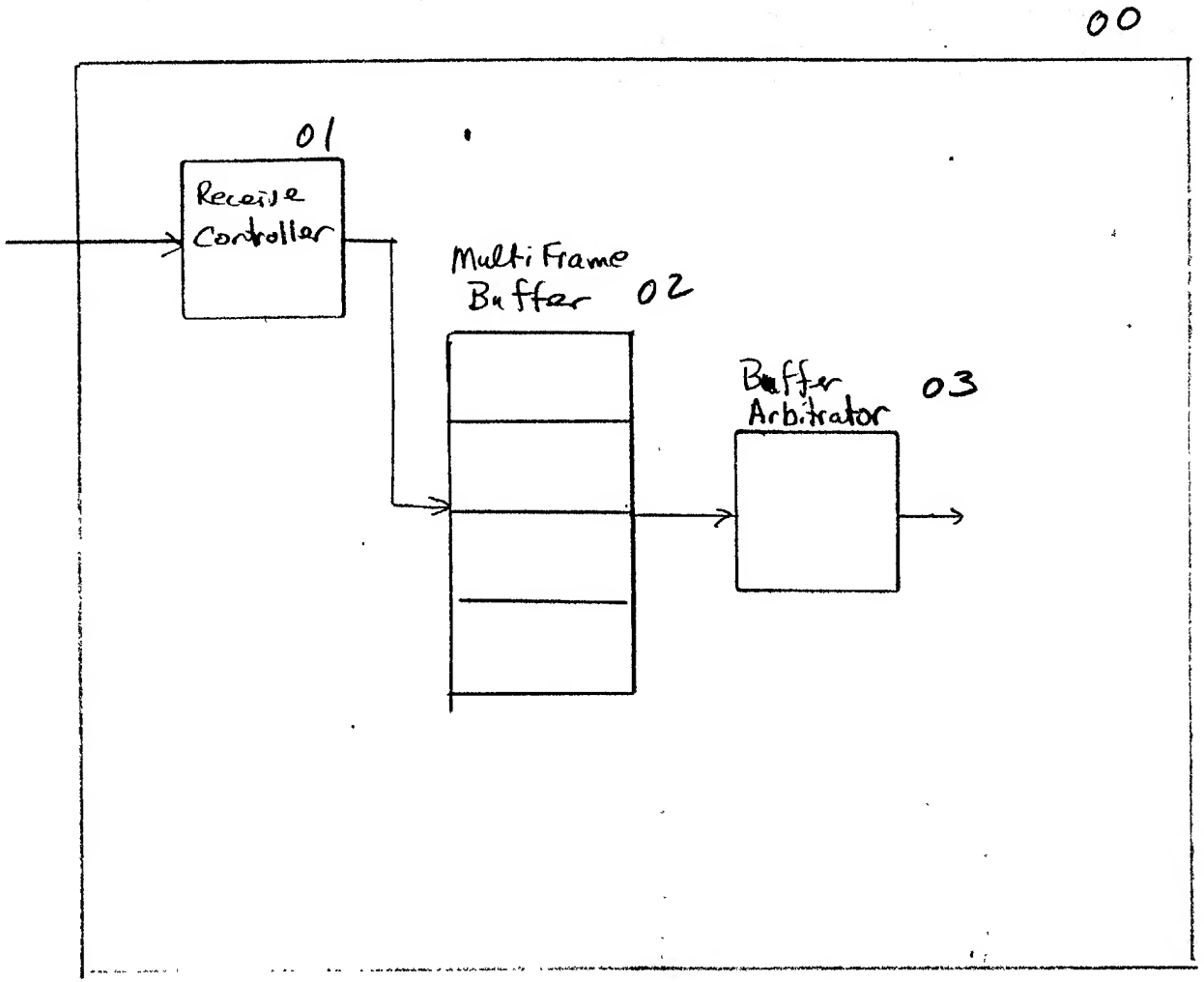


Fig 10

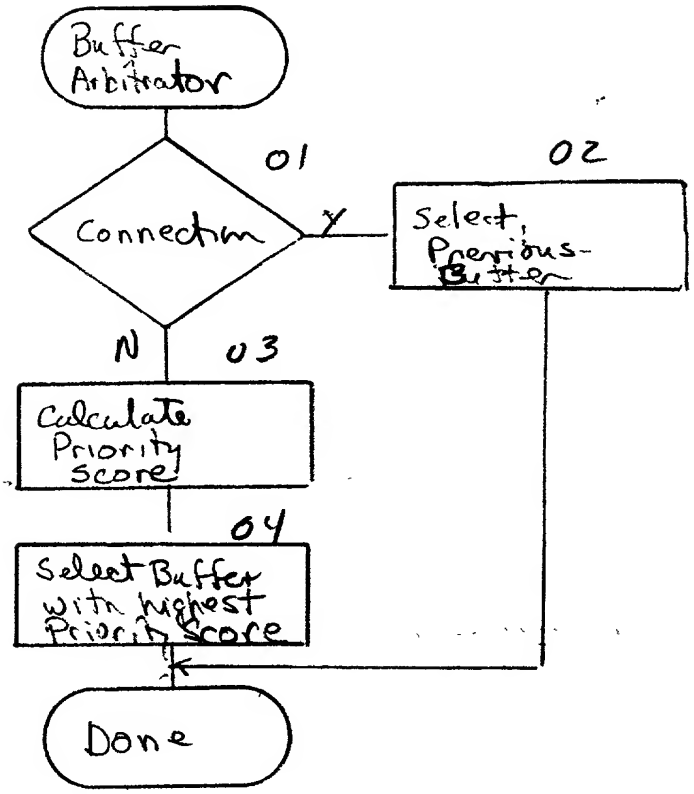

Buffer Arbitrator
01
02
Connection
Y
Select Previous-Buffer
N
03
Calculate Priority score
04
Select Buffer with highest Priority Score
Done

Fig 11

T09207"2594001

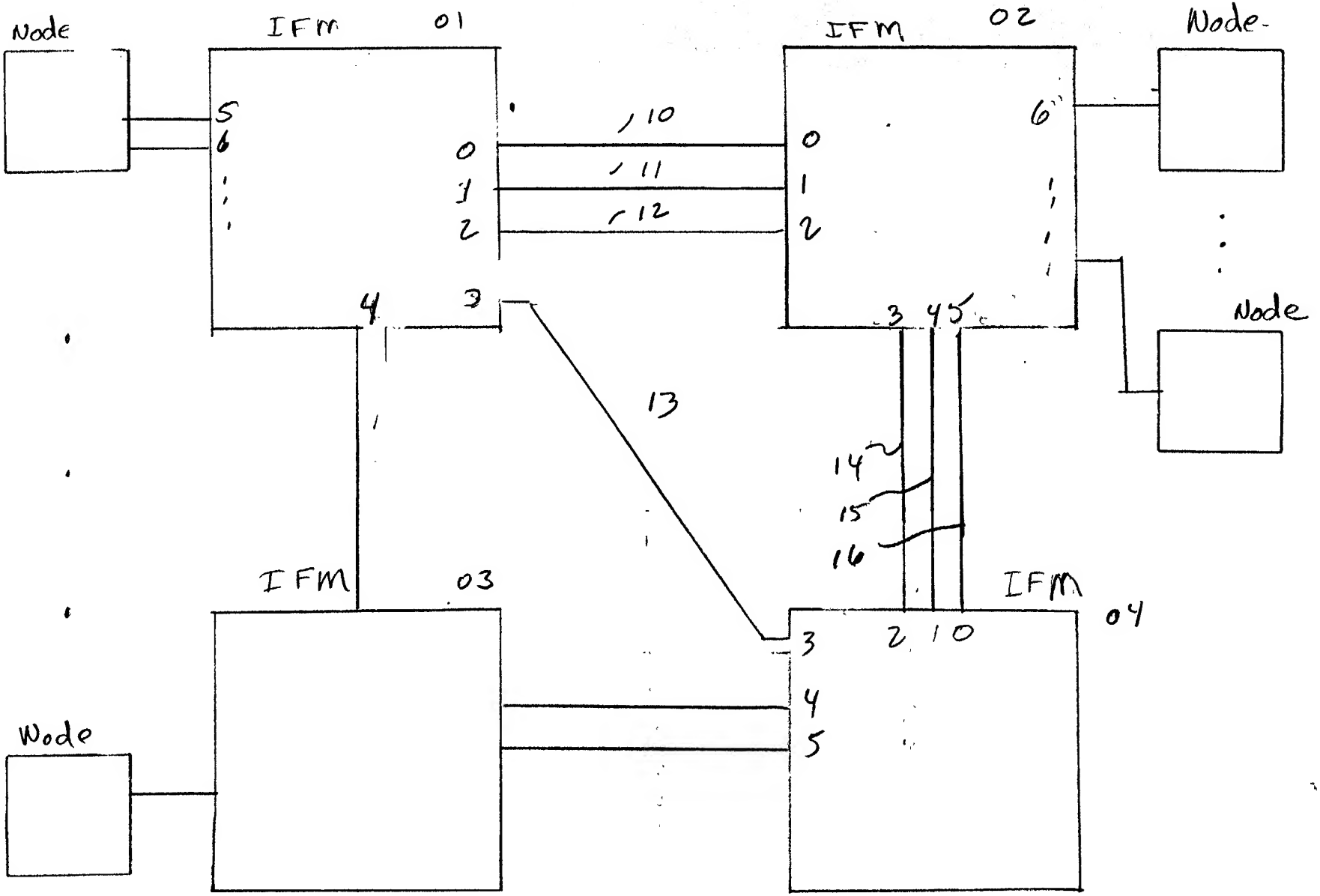


Fig 12

T0920T 2759h00T

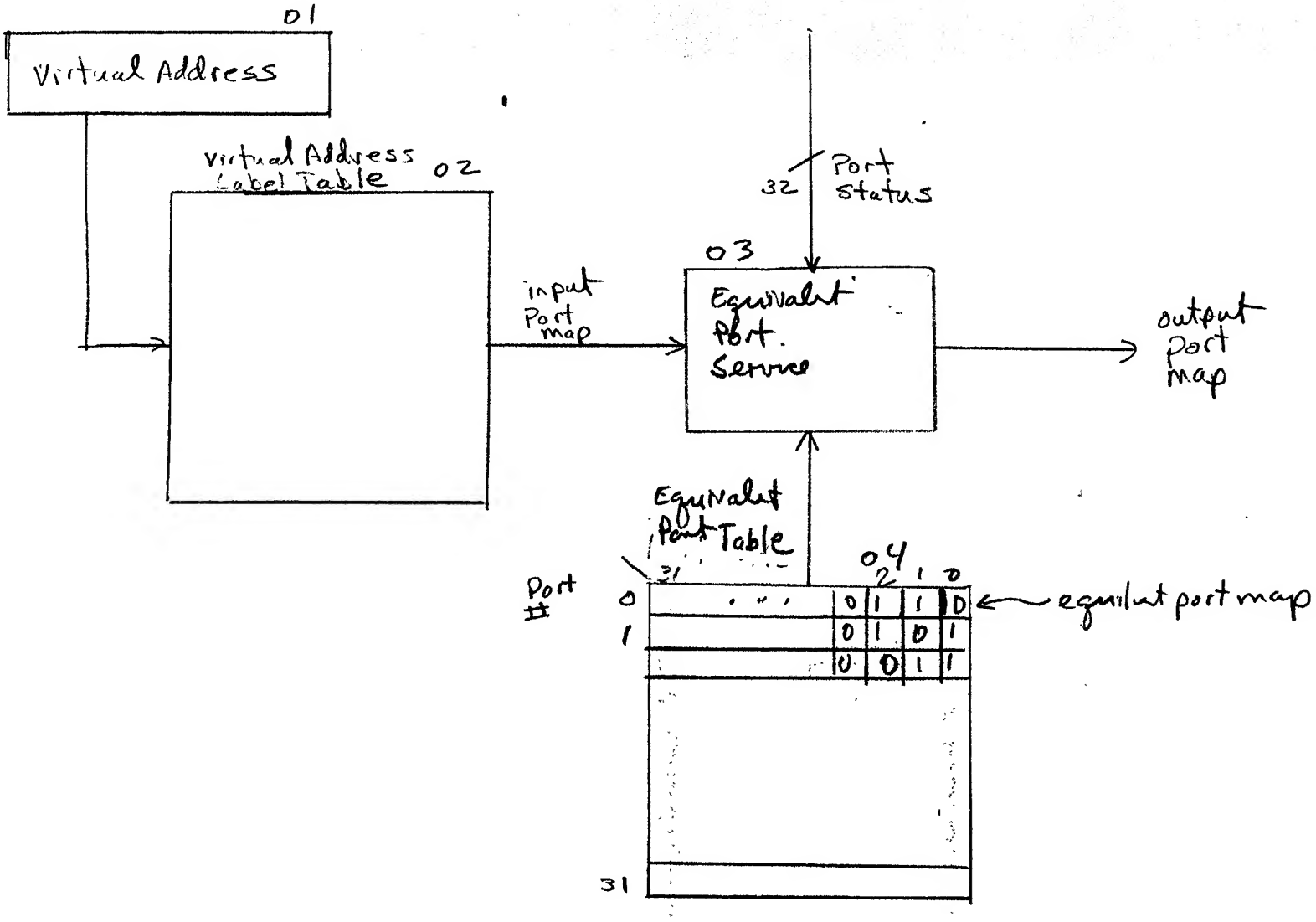


Fig 13

Docket No. 10020

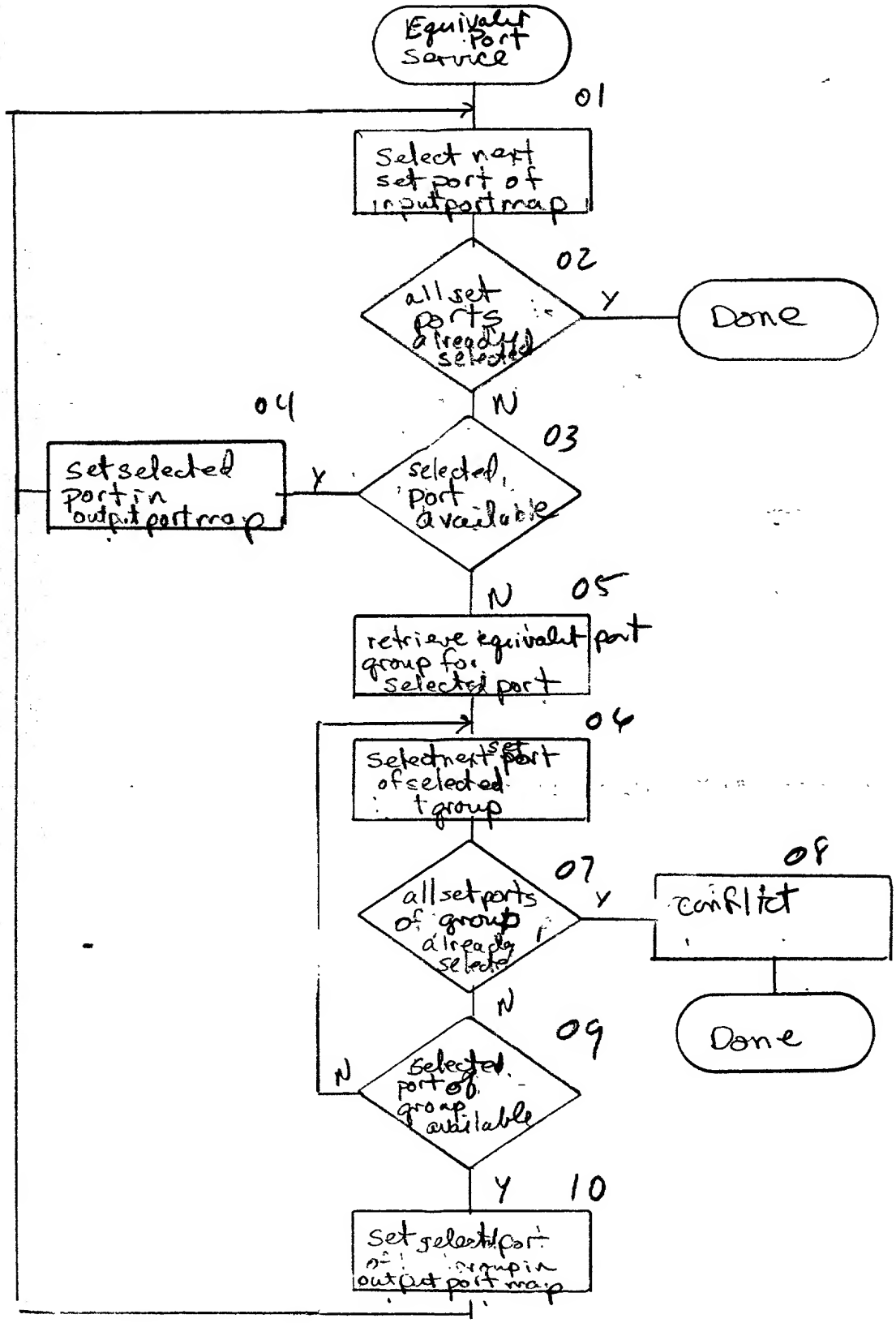


Fig 14

T09207 2594007

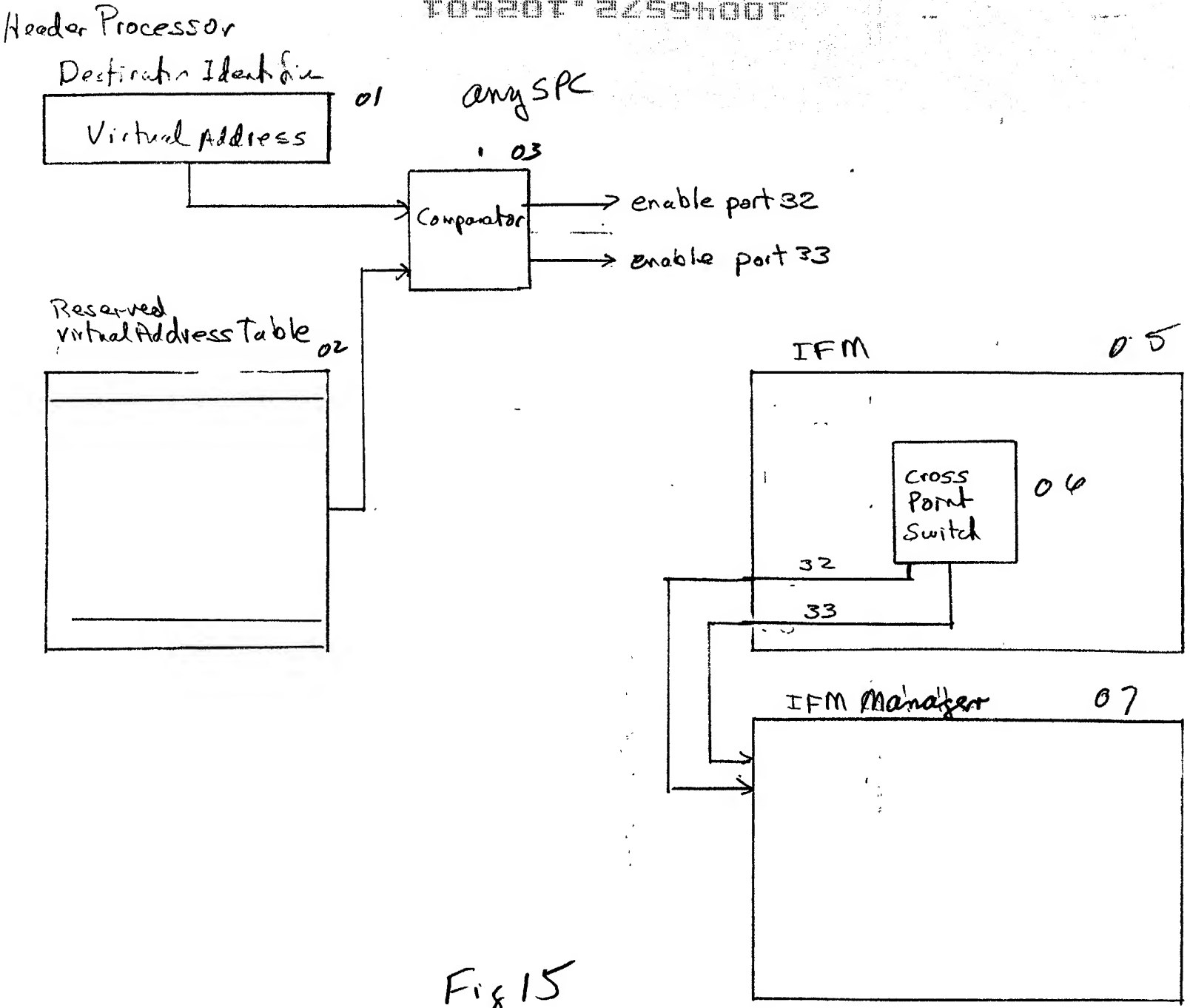
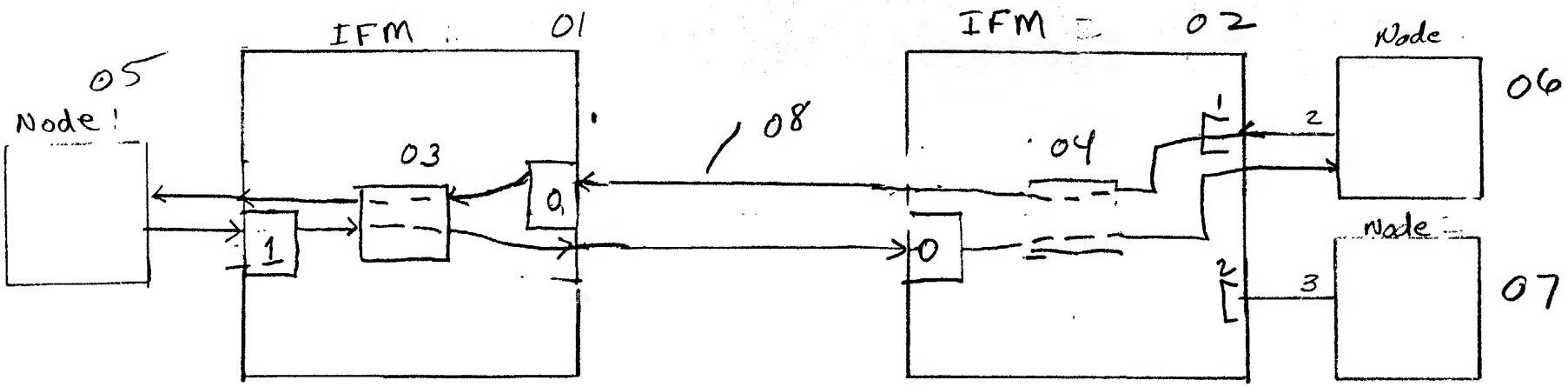


Fig 15

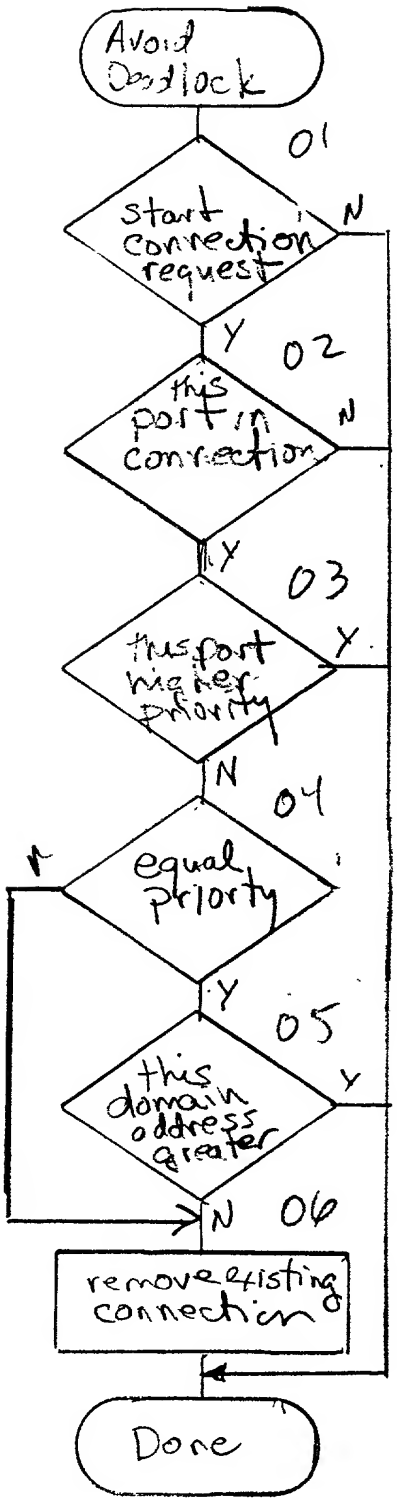


Deadlock

10

Time	Node 1605 IFM 1601	Node 1606 IFM 1602
0	Send start connect	Send start connect
1	Connect 1 ↔ 0	Connect 2 ↔ 0
2	Forward start connect	Forward start connect
3	Can't forward start connect Node 1	Can't forward start connect

Fig 16



When end-to-end not established

Fig 17

10045571.100501

T09207"2594007

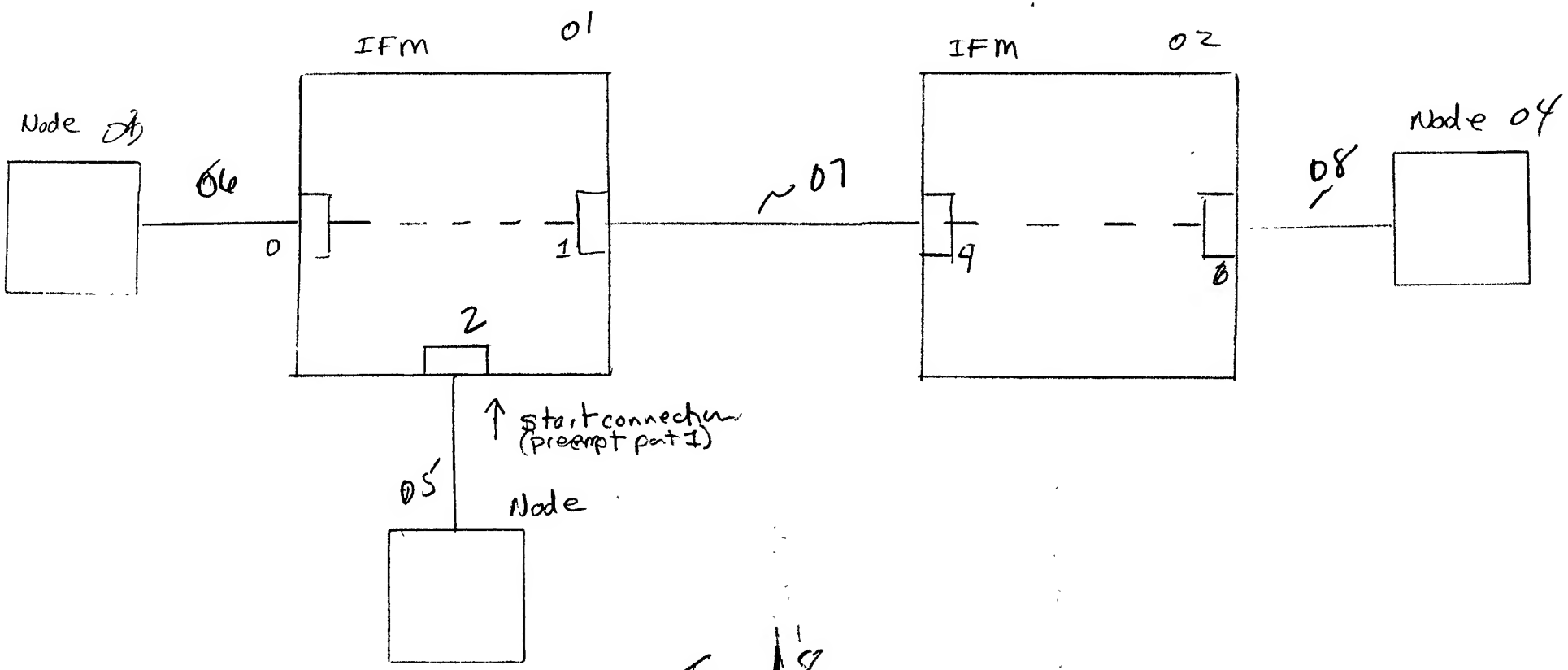


Fig 18

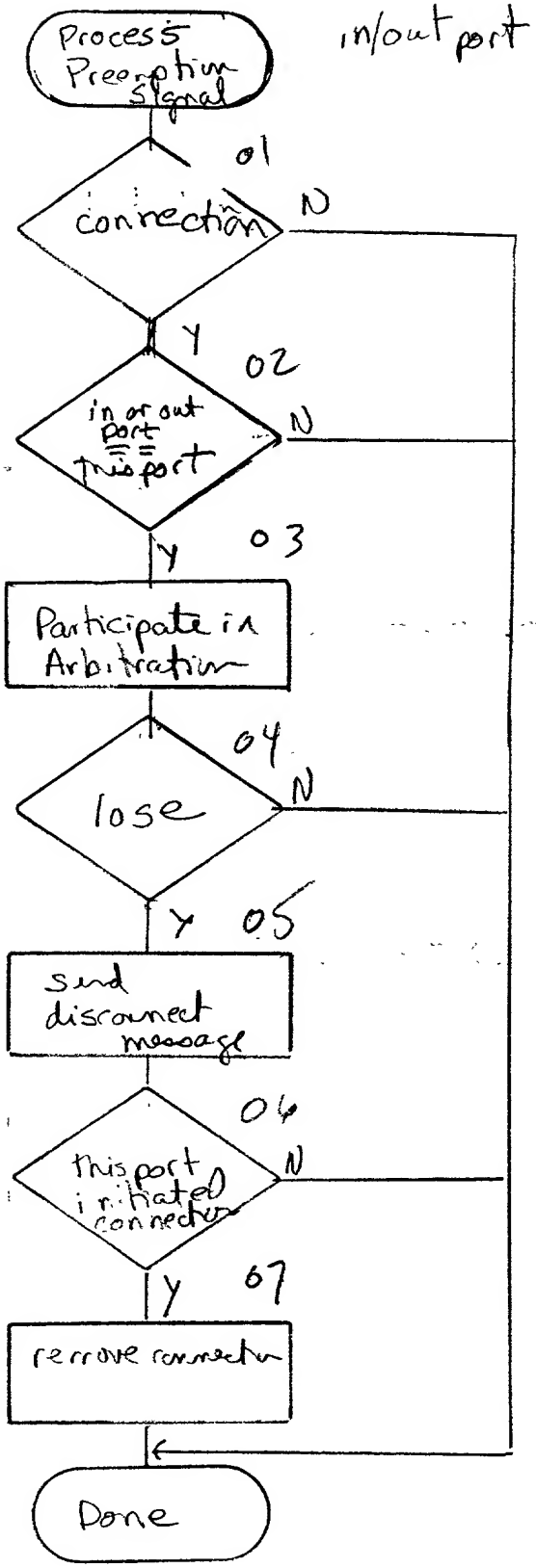

Process Preemption Signal
in/out port
01
connection
N
Y
02
in or out port = this port
N
Y
03
Participate in Arbitration
04
lose
N
Y
05
send disconnect message
06
this port initiated connection
N
Y
07
remove connection
Done

Fig. 19

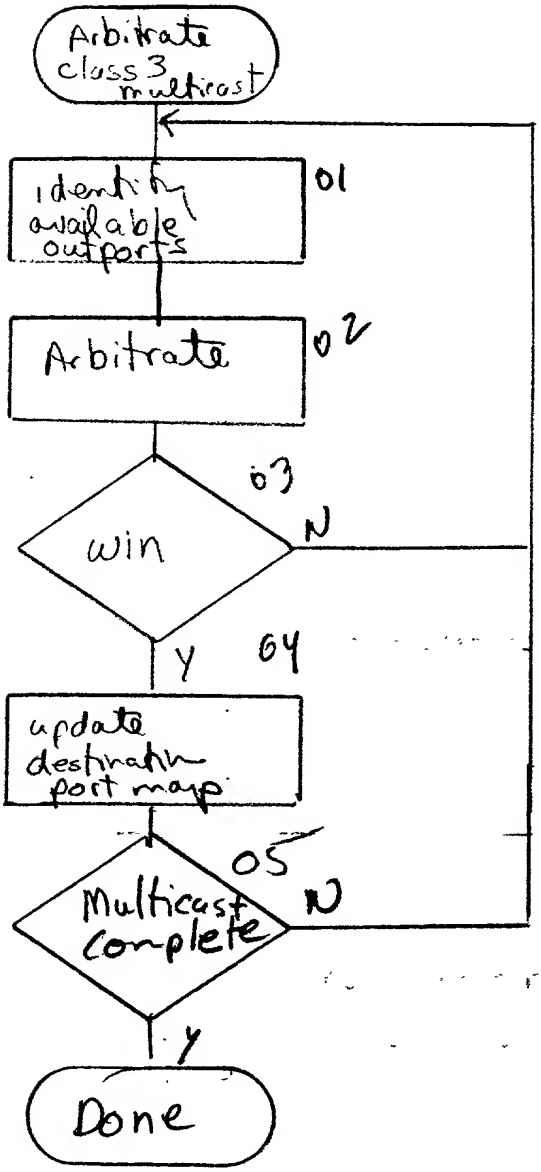

Arbitrate class 3 multicast
identify available outports
01
Arbitrate
02
win
03
N
Y
04
update destination port map
Multicast complete
05
N
Y
Done

Figure 20